# bay restoration commission

STEWARDS OF SANTA MONICA BAY

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**THE SANTA MONICA BAY RESTORATION COMMISSION**
**TECHNICAL ADVISORY COMMITTEE**
**MEETING SUMMARY**


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WELCOME AND INTRODUCTIONS

Chairman Ambrose called the meeting to order on December 15, 2014 at 9:38 am at Pereira 128, Loyola Marymount University, 1 LMU Drive, Los Angeles, CA 90045. Round robin introductions followed.

*TAC Members*

| | |
|---|---|
| Rich Ambrose (Chair) | Present |
| Steve Bay (Vice Chair) | Present |
| Mas Dojiri | Present |
| John Dorsey | Present (on phone after lunch) |
| Rainer Hoenicke | Present |
| Karen Martin | Absent |
| Dan Pondella | Absent |
| Eric Stein | Present (on phone) |

*Staff Present*

Lia Protopapadakis, Marine Scientist & Project Manager
Guangyu Wang, Deputy Director
Tom Ford, Executive Director
Jack Topel
Karina Johnston
Victoria Gambale

*Members of the Public*

Kathy Knight, Sierra Club Airport Marina Group & Self
Laura Nuñez, MBC
Christian Lim, LAC DPW
Jeanette Vosburg, Grassroots Coalition
Shelley Walther, LACSD

PUBLIC FORUM

Kathy Knight, representing the Sierra Club and herself, encouraged people to think about restoration such as that planned for the Ballona Wetlands in terms of science, religion, and morality.

Jeanette Vosburg, representing the Grassroots Coalition, commented on the activities occurring at Oxford Lagoon and recommended that the trees be taken out in a phased approach. She commented that her neighborhood drains to the basin and she captures all the water from her property.

GENERAL BUSINESS

a. Order of the Agenda. NO CHANGES
b. Approval of Meeting Minutes. APPROVED AS EDITED. Moved by Steve Bay, seconded by Mas Dojiri.
c. Reports from the Chair, Subcommittees, and Staff

*Chair Report*: Rich had nothing to report.

Subcommittee Report: Lia gave the report for Dan. Staff sent a version of the Wetland White Paper to a hand-selected group of outside reviewers. Staff will incorporate these comments into the next revision and include the summary of comments and staff's response as an attachment when staff sends the final draft to the TAC and MRAC for review. Staff also had a meeting with Rich

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Ambrose and Eric Stein to discuss the organization and how to incorporate suggested metrics into the literature review. Staff needs to revise the timeline for completion, but expect it to be done before July.

*Staff Report*: Guangyu reported that the EPA program review is complete. The official letter was very complimentary and allows us to continue receiving EPA funding as a National Estuary Program (NEP). The level of funding and requirements of the program change every year. Next year, there will be new requirements that reflect the Obama administration's priorities. One such priority is that all federal agencies must address climate change. The related NEP requirement is to evaluate the Bay Restoration Plan actions to see whether they will be subject to impacts of climate change (sea level rise, storm surge, and erosion). The EPA may provide a separate pot of money to pay for the evaluation.

Tom Ford added that he will be talking with colleagues working at other west coast NEPs about how to raise the profile of ocean acidification and hypoxia as important climate change impacts because the East Coast NEPs are more concerned about sea level rise.

Guangyu noted that the Governing Board will be meeting later in the week. Staff is recommending that the SMBRC issue another RFP to reward the remaining funds in the Proposition 84 grant program (~$7.1 / 7.2 Million). The Governing Board will vote on it at the meeting. Staff believes the timing is right for an RFP because a lot of things are happening related to the MS4 permits. Cities and counties are developing their enhanced watershed management plans. New products have been developed, and good project opportunities are on the way. If the Governing Board approves the staff recommendation, the TAC will be asked to review proposals next year. Also on the Governing Board meeting agenda is a presentation on the objective findings about the Hermosa Oil Drilling Ban from the group that prepared the EIR/EIS. Hermosa Beach is having a special election in March that will include a referendum on the project. The shale might daylight in the wall of the Redondo Canyon. SMBRC is interested in how the drilling will affect the natural oil seeps in the Santa Monica Bay and the risks associated with transporting oil through our watershed and across the bay.

*Discussion:* The TAC recommended working with Alex Hall (UCLA) and Jeremy Pal (LMU) on any project related to climate change. Kurtis Deutsch and Jim McWilliams (UCLA) along with Mark Gold have Ocean Protection Council money to model ocean acidification locally. The West Coast Ocean Acidification and Hypoxia Science Panel has been producing newsletters and facts sheets, which are quite helpful. The TAC also noted that of the climate change impacts, ocean acidification and hypoxia are very likely to be very important on the West Coast.

*Public Comment:* None

d. Member Comment *(TAC members may wish to comment on issues not otherwise on the agenda.)*

*Rainer Hoenicke:* The lead scientist for the Delta Science program is a USGS employee on detail to the project. It is a rotating position. The current position will vacate in June and the application period is still open.

*Mas Dojiri:* Algologist, Dr. Steve Manley, is heading a project called Kelp Watch 2014 to detect cesium 134 coming to our shores from Fukushima, Japan. They have not detected cesium, but they did detect the highest concentrations of iodine 131 (used in medical treatment for thyroid problems) right in front of the Terminal Island Water Reclamation Plant. LA City Environmental Monitoring Division (EMD) will take effluent samples and give them to Dr. Manley who will ship them to a lab at Berkeley for analysis. If the iodine 131 is coming from the effluent, the most likely source is Kaiser Permanente – Harbor City. LA City EMD is also hosting a delegation from Shanghai on Thursday, which is interested in learning about water treatment and solid waste management.

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*Rich Ambrose:* A paper was published in PNAS a few weeks ago on the likely cause of the sea star wasting disease. The likely cause is densovirus, with a secondary bacterial infection leading to death. The virus is known to cause disease in urchins in Hawaii and it has been identified in local sea star samples dating from 75 years ago. The big question that remains is why was it triggered now? Also, the disease is usually associated with warm water, but this outbreak did not follow warming water trends.

Recently completed MARINe program sampling resulted in 0 sea stars in Los Angeles County. However, the Ventura site (which was the last one hit) had high recruitment. It is impossible to predict whether these new recruits settled before or after the epidemic. Other sites through Ventura and Santa Barbara County had 4-6 adults. These stars were either missed in previous surveys or they moved up from the subtidal zone. Some stars did manage to avoid dying. At a few sites half of the stars survived, but at most sites all the stars died. The disease can be passed between echinoderms and *Stronglyocentrotus spp.* are affected on the islands. However *Centrostephanous sp.* and *Stronglyocentrotus spp* on the mainland haven't been affected yet. MARINe/PISCO is starting to compile evidence for urchin die-offs.

*Discussion:* John Dorsey reported seeing urchins with lesions at Point Fermin. Rich added that lesions sometimes go through the test leaving a hole on the side. Urchins are harder to follow because their lesions can be isolated and can be hidden up against the rock. Tom noted that some of the red urchins (*Stronglyocentrotus franciscanus*) in the kelp restoration sites have very isolated lesions, i.e. they are missing 4-5 spines in one spot, while some purple urchins (*Stronglyocentrotus purpuratus*) are missing bigger chunks of spines. He also noted that the extreme storm event in March caused physical damage to the urchins that produced similar lesions.

*Public Comment:* None.

AGENDA ITEM 4: Review the Oxford Basin Proposition 84 Project Monitoring Plan

*Presentation:* Christian responded to the public comment saying that the County had received several inquiries about the project and is planning a public meeting in which the public can discuss their concerns with the County. Christian Lim gave an overview of the project and Chris Lopez provided more detail on the monitoring plan. The project is a 10.7 acre flood control facility in Marina Del Rey (MDR) just south of Washington Blvd. The project goals are to improve flood control capacity, habitat availability, water quality, recreational opportunity, and public access. All the permits, funding, and endorsements are in place. CDM Smith has been hired to help with the design and implementation.

Tree removal is scheduled to begin later this month to avoid the nesting season, which starts in January. However staff biologists noted that the birds mostly did not nest on the project site. 650 trees will be removed and 730 trees will be planted. The trees that will be removed are either diseased or non-native, while those planted will all be natives. Major construction will occur May 2015 – October 2015, to avoid the storm season, while minor work will continue through March 2016.

The Monitoring Plan is designed as a 5-year adaptable plan. Each year, the County will review it and make changes as necessary. SMBRC will be informed of any changes that are made. The Plan includes monitoring water quality, sediment quality, physical habitat, submerged aquatic vegetation and algal community, and the benthic macroinvertebrate community.

The County is also working on a plan upstream of Oxford Basin that will include green streets and reclaimed water use to reduce land-side inputs. Oxford Basin used to have a trash boom, but they don't need it any more, a fact that is attributed to the installation of trash screens.

*Discussion:* The TAC recommended contacting Dan Cooper for additional information on nesting birds in the area, if they haven't already.

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Regarding water quality, the TAC noted that wet weather is tricky to monitor. The height of the tide when the samples are taken will affect the rate of flow and the volume of water. It will also be important to make sure the samples replicate the same condition. The correct height to target will depend on the question to be answered. Selecting a neap, spring, and mid tide will give a full picture, while targeting low spring tides will give a worst-case scenario. The signal-to-noise ratio should also be considered. If there is high variability due to sampling across a range of tidal conditions, then more samples will be needed to compensate.

Regarding sediment sampling, the TAC observed that a very low spring tide will likely cause sediment resuspension and it will be important to know what is in the sediment because it will enter the marina. If monitoring data later show that inputs to the basin are causing contaminated sediment, then projects can be developed to clean up the water coming into the lagoon.

Regarding benthic sampling, there was concern that the procedures used to collect the pre-project data were inconsistent with standard SWAMP SOPs in an effort to be consistent with a past study on the site by Hamilton. If the sampling was a subset of SWAMP, then the data can be incorporated into the regional database. However, if it was entirely different, then this non-standard method will make it challenging to incorporate and hamper efforts to answer bigger questions about BMP performance. Eric Stein noted that this has been his ongoing concern with monitoring plans for projects approved by the SMBRC. It does not appear that these monitoring plans are being looked at for their ability to be compared with other results regionally.

Regarding adaptive management, the TAC wondered what the benchmarks or criteria for determining whether the condition has improved. Comparing before and after data is a good start, but more information is needed discussing how the data will be analyzed and interpreted and what the criteria for non-TMDL objectives will be.

The TAC recommended the following:

- Either monitor on spring tides to measure the worst-case scenario or select a tidal height that can reasonably be expected to be sampled on the frequency identified in the plan in order to maximize data comparability.
- Add current use pesticides to the list of toxics to be monitored. These will likely be added to TMDLs in the future and are believed to be major stressors.
- Ensure detection limits are appropriate. Some constituents, particularly for hydrocarbons such as DDT, are expected to be a problem, but the analytical method used is giving non-detect results. In cases such as this, where the constituent is expected to be a problem, the detection limit of the method should be reevaluated.
- Establish a visibility limit as part of the sampling method for submerged aquatic vegetation.
- Conduct a power analysis on existing data to get a sense of variability to better understand if the sampling frequency is appropriate statistically.
- Develop a decision tree to assist with adaptive management of the monitoring plan.

*Public Comment:* Kathy Knight commented on the decision to fund the Oxford Basin project with Proposition 84 money. She also suggested working with local stewardship groups to save the county money and get the community involved. Later, Kathy asked if the lagoon will be brackish after the restoration. Christian replied that the salinity will be similar to what it is currently.

Jeanette Vosburg commented on the decision to fund the Oxford Basin project with Proposition 84 money.

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AGENDA ITEM 5: Presentation on Preventing Boat Sewage Discharges

*Presentation:* Vicki Gambale presented data from several years of boat pumpout monitoring conducted by The Bay Foundation's Boater Education Program (BEP). The purpose of the monitoring program is to track conditions, evaluate performance, and ensure they are in working order. There are three quantitative metrics collected: the time it takes to empty a 5-gallon bucket, the pressure of the vacuum pump, and the number of hours the motor has run. The motor running time is a poor proxy for volume pumped because it runs before and after a boater has pumped out his holding tank. One problem with the pumpouts is the pressure diminishes with increasing distance between the motor unit and the pump, providing less suction, which takes longer to empty a tank. Other outcomes of the program include improved accountability. Surveys of boaters have shown that if a boater encounters a broken pumpout once, they will assume that it never works. If the BEP notices a problem with a pumpout, they notify the marina, which usually fixes the problem quickly, which means there is less of a chance that a boater will come across a broken pumpout. The next step for the program is to share the data publically. The benefit would be that boaters can see which units are more reliable or operational at any point in time (like gas buddy). BEP is considering a report card that pools all the data collected over time into an index of reliability. However, there are data gaps. Foremost, is that quarterly monitoring might not be frequent enough for it to be useful for the public. In addition, units are not always accessible by land and some units have hour counters that are difficult to read, making that data a little less reliable despite QA/QC checks.

*Discussion:* The TAC suggested the BEP looking at the Gas Buddy app as a way to engage boaters in reporting whether a pumpout is working or not to fill in gaps between monitoring visits. Steve Bay mentioned that SCCWRP has been developing apps and they recently completed one for surfers to report health complaints following surfing. Also, if building a report card, consider including a metric for the timeliness of the response. BEP can note if the problem was fixed by the next monitoring visit, but if the marina wants to be proactive, they could send documentation that the problem as fixed, so that the public data could be updated. Vicki commented that State Parks gives money to the facilities to install the pumpouts, so they could incorporate minimum operational standards into the grant agreement.

*Public Comment:* None

AGENDA ITEM 6: Discussion on the State of the Bay 2015 Report Draft Stories.

*Presentation:* Guangyu reported on a meeting SMBRC staff had with Mark Gold and staff from UCLA's Institute of the Environment regarding their environmental report card for Los Angeles. Ocean habitat health is one component of this and there is the potential for duplication of effort or conflicting results between their card and our State of the Bay Report. We learned more about the report card and the process they are using to develop it, which is different than had been done in the past. They asked us to review the card before they release it, as a way of preventing conflicting conclusions. Their goal was to publish by the end of the year, but we haven't heard anything from them yet. In conclusion, we will have to pay attention to their report card when we write our State of the Bay Report, but then their next 4 issues could be informed by our Report. There may also be opportunities to find funding for future collaborative projects.

Lia showed the TAC the work that the two interns have done on collecting data on trash and LID projects for the State of the Bay Report and asked for feedback. Both stories were to be included only if the data found were compelling.

*Discussion:*

Regarding the trash data, another line of inquiry for the trash story is the amount of trash generated per inch of rain. Overall the story needs to be integrated with the one that Eric Stein drafted

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focusing on trash from the stream monitoring program. For example, Eric's draft showed that streams are a major conduit, but this article says storm drains are a major conduit. A graphic showing the movement of trash through the watershed (i.e., through streams, into the storm drain systems and out to the beach and ocean) could help illustrate the topic. Dots could be placed on the graphic where current monitoring sites or opportunities to monitor exist. The data from the trash TMDL should focus on progress toward the goal, so percent of storm drains modified would be a better metric to use. The graph could show percent of basins with inserts changing overtime. This could also be mapped over time for an online interactive publication. It might also be interesting to discuss different ways to quantify the data (weight, count) which gives different answers. The 2013 beach trash data can be used if only looking at specific constituents. Categories should be selected, so that they are comparable across all years and are broader than the categories in the data. It might be interesting to look at a pie chart for major constituents by location (Santa Monica Mountains drainage, Ballona Creek drainage, and Palos Verdes drainage). The categories should be selected based on what makes sense for public education and possible management actions. The major constituents found on the beaches should also be compared to the watershed data. Also look at whether people's trash disposal patterns have changed over time (more generally, in addition to looking at the cigarette butt and plastic bag bans).

Regarding the LID data, recommended metrics to look at include the number of project sites, the geographic area covered, the timing of project implementation, and how much of the watershed has been impacted by these projects. This will answer the question "what has been done". The other question is "what can be done". The TAC recommended including callout boxes on different approaches (i.e. if you are a school, consider doing this). To find additional project sites, approach the water districts for a list of completed and approved turf removal projects. These should include the square footage, date, and location. The turf removal projects are applicable to water quality goals, because they require that all the water remain on site. The program alone is worth highlighting and should be a good quantitative source of data. It might also be interesting to compare their data from the 1980s to now (if it is available). Other resources for LID projects include: Heal the Bay, the City of LA's rain barrel program (Wing Tam), LA County's rain barrel rebate program, and Tree People. Long Beach's ocean friendly garden program could be included in the story as an example. This story does not need to be numbers driven. Talking about the types of projects applied to different types of properties might be interesting enough.

*Public Comment:* Shelley Walther recommended using R's new shiny package app for interactive statistical analysis designed for websites. Shelley also suggested looking to see if the cities or the county has ocean friendly certification programs, like Long Beach's, for additional project sites.

ANNOUNCEMENT OF NEXT MEETING:

A tentative date for the next meeting was set for April 3, 2015.

The meeting adjourned at 2:11pm.